Chapter VI
IMAGINATION PROPER

THE kind of imagery we have been speaking about is usually called by psychologists Reproductive or Representative Imagination. Its imagery is limited to the reappearance of things or events in our past, whether that be a past of many years or few minutes; its images are purely memory-images. I have purposely been sparing of the term 'imagination,' because in our everyday use of it we imply something more than this and something different. Representative imagination is what we usually call by the simple name of Memory; but there is another kind of imagination of which we have yet to speak, a form which exercises itself in much greater freedom. This is known as Productive, Constructive, or Creative Imagination.

198. Perhaps the simplest form is imagining a means to an end, and we often see this at work in early childhood. Here are three examples from recent personal experience.

(*a*) Two small boys, on the edge of the ornamental water in Regent's Park, are playing with a little sailing-boat. It evidently belongs to the younger, who may be five years old. The string, insecurely fastened to the small craft, comes undone and is left in the child's hand, while the boat sails out of reach. The little fellow is desperate: 'Oh, 'tis gone! 'tis gone!' But the other boy, very little older, picks up a stone and ties the cord firmly round it. Then, aiming beyond the boat, at the second try he gets it over, and the derelict is towed into port. Before the boy did that he must have seen himself in imagination going through the whole

performance, connecting ideas of things that had no common relationship to one another to compass a possible end.

(*b*) The next example is from a younger mind. Grannie had spent the day with the bairns, and had made no provision for getting home from a neighbourhood where cabs were scarce. Various routes by tube and bus were suggested, all impossible for Grannie, who was very lame. The baby, not quite three, was plucking at her mother's sleeve, evidently bursting with an idea. At last it came: 'Mammy, there's the rocking-horse in the nursery!' It was pretty, and incidentally proved that when Jean was on the rocking-horse she was not merely rocking; she was going somewhere. If Jean could go, then so might Grannie. Here was real thinking, and purely in images.

(*c*) The hero of the following was aged eighteen months. Douglas was taken by his mother to visit a friend. The children of the house were out and their mother occupied in another room. So Douglas was planted on the nursery floor with some toys at his hand, the little safety gate across the door, 'nothing within reach that could hurt him,' and the mothers retired to the next room. Nothing within reach! But Douglas knew a jam-pot when he saw it, and also knew one of the uses of a chair; and when the mothers were at liberty they found Douglas on the chair, the jam-pot nearly empty, and as much of its contents outside the baby as inside. Whether we can class this as Constructive or Reproductive Imagination depends on whether Douglas had ever done this before or not. Was it the suggestion of a mere memory-image, the revival of an identical experience, or did he—all the attendant conditions being different from those in his own house—think it out? Unfortunately he cannot tell us yet, his form of self-expression at present being deeds, not words.

199. The inventive mind is of this constructive type. A cook wishes for some quick way of peeling potatoes or stoning raisins. A mechanic says, 'I see how that can be done,' and his '*I see*' is literally true. With his mind's eye he sees the tool that

is to do the work. Now, we have been learning that a mental image is a copy of something which at one time or other has been actually present to sense-perception. How, then, can he have a mental image of a tool which is not yet in existence? He has ideas of various other tools, each a means to an end; and, just as a child breaks up his house of bricks and builds another and quite different house out of the same materials, so the inventive mind breaks up its existing images and pieces them together in a different way to compass a different end. And when the inventor's vision materializes, the world is the richer by—well, it may only be a potato-peeler, but it may be a typing machine or an aeroplane or a wonderful substitute for a lost limb that will make life bearable to a broken man.

200. You see, if imagination were always limited to memory-images we should never get any further. As things were in the beginning so they would be now, and ever would be. But we can split up our images, dissociate ideas, and recombine them in a fresh connection. We can break up complete images into part images, and join parts to parts, and so produce something new, something that is not a copy of any actual object or any actual experience.

201. In teaching we rely greatly on the pupils' reproductive imagination, i.e. their memory. We use it to test their retention of facts. We use their memory of one set of facts to throw light upon another set, through comparison, analogy, etc. But we have also to call into play their constructive

imagination to a very great extent. Children have to learn about many things which we cannot show them in the concrete, so we have to help them to build up mental pictures out of those they already possess.

202. For though we call imagination free, it is not totally free. In all our mental creations we must use existing material. 'You cannot imagine a colour over and above the colours you know, though you may imagine these combined in new ways.' It is out of memory-images that our liveliest imagination has to construct its fancies. We cannot build houses without bricks, not even castles in the air. And so, when we want to teach a child about something that has never, and may never, come into his experience, we have to begin with that concrete fact, or a memory-image of it, which comes *nearest* to what his imagination has to construct.

203. Some years ago there was a very interesting article in the *Journal of Education* on 'Hampstead Heath as a starting-point in teaching physical geography.' The child's imagination magnifies its ponds into great lakes, its trees and scrub into forest and jungle, its sandy places into deserts; the Spaniard's road typifies a plateau and a water-shed, and so on. Any familiar thing may be changed in imagination to something 'the same, only much bigger,' or smaller. Professor Sully points out that an iceberg or a glacier can only be imagined by a child who has fairly distinct images of the blocks of ice he may have seen. Starting from the fishmonger's window he arrives

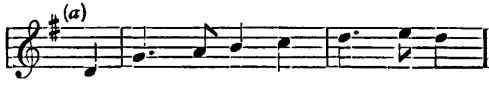
at the iceberg. Pigmies and fairies are only real people looked at through the wrong end of our mental telescope. The delight of a fairy-tale is the free exercise of this constructive imagination. Things that never were are created out of things that are, and improbability is no bar to a new combination of ideas when we are very young.

204. The poet, the painter, and the musician cater for us in this way, putting together in a new fashion things and fancies that we know already in other combinations. But while the poet and the painter have all creation to come and go upon, the musician's material is extraordinarily limited. Have you ever realized how limited it is? In our musical scale there are twelve sounds, and out of these twelve sounds all the music in the civilized world has been constructed.* We multiply them by seven or eight octaves, we form them into groups that we call keys, we ring the changes on these, we alter their quality by producing them

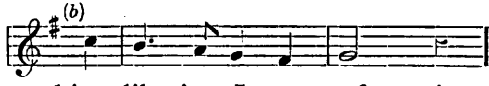
* The bald statement sounds startling, but it is simply explained. On a chime of four bells you can ring twenty-four changes. A simple mathematical progression gives 720 changes on six bells and 40,320 on eight. That is to say, out of one diatonic octave you may construct over forty thousand melodies. They wouldn't all be good melodies; a large proportion would probably not be harmonizable—though we could not nowadays be sure about that—but they are a possibility. If we extend the same mathematical formula to a peal of twelve bells, a chromatic octave, we get 479,001,600 changes. A possible 479 million tunes leaves a large margin for harmonic limitations, so that we need not be nervous about the supply of workable melodies 'giving out' like the coal supply. And to the possibilities of melody and harmony we have to add the endless possibilities of rhythmic combinations, unthinkable in number. We sometimes hear it said that the classic composers exhausted the good tunes, so that it is difficult to be original; but, on the whole, it looks as if our young composers may carry on, in confidence that the supply of raw material will last their time.

on stringed instruments and instruments of wood and brass. We combine and re-combine all these, and stimulate the imagination still further by adding to them mere noises, the clash of cymbals, the bang and rattle of drums. But there they remain, the twelve—a contemptible little army that has conquered the world and still has worlds to conquer.

205. This brings us to the question of how far we can call the constructive imagination, so active in the child's free play, into use in our music lessons. The let-*me*-do-it spirit is strong in children; can we use it in creating anything new? The kindergarten idea of encouraging 'self-expression' has caught on with the music teacher, without much consideration of the medium through which the thought has to be expressed or the nature of the thought itself. The exercise commonly used is one that I first saw thirty years ago at the Summer Sessions of the Tonic Sol-fa College, when experts in teaching demonstrated methods, suggested devices, and tried experiments in front of the students. It consists in singing a short phrase to a child and eliciting a response to it. For instance, the teacher might sing—



and the child would perhaps reply—



or something like it. It was a favourite experi-

ment with the late Dr. McNaught, who, in his teaching days, was particularly happy in the handling of classes of very young children. But he never tried to build anything on this rickety foundation; he knew just how much it meant and how little.

206. To the teacher the experiment is very useful, enabling her to form some estimate of the general musicality of her class, and what response to the more direct and real teaching may be expected from individual children; for you can almost pick out the child who comes from a musical home by the spontaneity and fitness of his replies. To the child its chief value is as a relaxation, and the teacher will use it to that end. A lesson to a class of little children consists generally of exercises in observing the facts of time and tune. Attention is short-lived, therefore the exercises have to be short and varied. Learning to know and name the sounds of the scale; singing short groups of these from the modulator, the hand signs, or the blackboard; recognizing them in ear-exercises; marking the accents in tunes by clapping; recognizing and naming pulse-divisions, and so on. Fortunately a music lesson offers scope for more variety in presentation than almost any other subject, because music is so many-sided. Now, short and varied as these exercises are, each involves comparison and judgment, and requires a moment of concentrated attention. So, to avoid fatigue, it is well to give little periods of mental rest by using exercises which require little or no thinking, and the

question-and-answer device is one of these; also that variant of it which consists in giving a snatch of a nursery rhyme and eliciting a spontaneous tune to it. The children, by these devices, can be kept actively occupied with a minimum of mental effort. The balance and proportion, the rhyming nature, so to speak, of the simple tunes a child sings, become by long use a part of his inner consciousness, so that a phrase of a questioning (i.e. incomplete) character suggests an answering phrase, and this, of course, will be an imitation or even reproduction of some remembered phrase.

207. Teacher and pupils can get much interest and amusement from this battledore and shuttlecock game, and if the teacher prepares her own phrases, so that she can quickly capture and write down the children's replies, the combination will often make quite nice little tunes. So long as the replies bubble up spontaneously all goes well; but if a child stops to think, i.e. to *make up* an answer, he comes to grief. The moment his attention is turned inward, self-consciousness comes in, and he is baulked. The conscious construction of a suitable phrase in answer to another would involve conditions belonging to a different stage of development; the possession of a certain amount of knowledge and the power of applying it. The spontaneous reply requires no knowledge and no thinking. It is merely the automatic appearance of a tune-image in response to a reminder. The child does not think about what he is going to sing. He does not hunt round

for something suitable, as you or I might. He sings whatever his tune-image brings to him. Yet people talk of this as composition. A school mistress, after describing this device, says naïvely: 'It is curious that if the children are asked to write their compositions they cannot do it.' It would be much more curious if they could; for if the child is baulked by a momentary glance at his own inward process he is baulked tenfold by the attempt to express that process through a medium that is not as yet fully at his command.

208. The use of these devices, then, is limited. I should say, use them, but to a limited extent; use them while you can. But do not expect the interest in them to last, for children tire of doing anything which does not develop, in which they feel they are not getting any further.*

209. But there is a stage at which we get something of rather more worth, when the child's practical knowledge of notation is sufficient to make him want to write down what comes into his head, and he begins to 'make up' tunes of his own, sometimes even to words of his own. Here we have some real constructive imagination. If it happen—and do not expect it to happen with every pupil—it is worth while to spend a portion of a few lesson-times in helping the child to put into notation the little tune he has perhaps picked out on the keyboard. The wish to write gives an

*An exercise in imagination, more useful, because more lasting in its effects, is playing to the children and asking them what the music says to them, what kind of *picture* it brings to their minds, what name they would give the piece. This reacts on their interpretation of the pieces they play and the songs they sing.

immediate value to knowledge of notation, and invests it with a new interest. Strike while the iron is hot, tell him anything he wants to know, engage his interest in anything musical while you can. But do not spend much time on it. Give him a start, and then let him try to get along by himself. If he is keen he will do it in his playtime, and you will show your interest by spending a few minutes of his lesson in looking at the tunes he brings to you. But do not be disappointed when this interest, too, fades out. In fact, the more you enlighten the child the sooner it is likely to subside. 'Why should it?' you ask. 'Surely here is something that may be developed, something we can build upon.'

210. Perhaps you can find the answer in the following little letter from a child of nine, enclosing a composition, quite a good minor tune, with a drone bass, single notes, tonic and dominant alternately:—

> 'I made up the piece I am sending, and I hope you will like it. I am afraid the bass is all the same, but I never can make any kind of tune in the bass of my make-up pieces without getting the treble all wrong.'

We smile at the child's way of putting it, but it expressed the feeling that a good bass ought to be something good in itself, and showed that she had been taught to observe what happened in the basses of the pieces she was learning. Now, the more a child learns in that way, the more she feels her own limitations, and the sooner she abandons composition. I do not say that in this case the interest *dies*. The active interest subsides,

but the intellectual interest will survive in the form of appreciation, and the active interest may revive years later in actual creative work. The child's attitude is different for having tried.

211. The practical question is, how much time are we warranted to give to work of this kind? The musical parent—I mean a parent who is a musician—in constant touch with a child, and able to give many odd moments of his spare time to him, can do much by such little games as I have spoken of to stimulate the child's pleasure in music; and that is worth while. Spare time, like spare money, may be spent on things that have not much intrinsic value but may have an indirect value. But what about the teacher who meets the child for, say, two half hours a week? We have seen that the little give-and-take exercise has a legitimate use, in small measure and up to a certain point; but what is to be done for the child who wants to 'compose'? Are we to take her seriously and embark on a course of harmony and composition? Surely not. Even the musician-parent would probably say to the child, 'Get on with your pianoforte-playing, and you will see how composers make nice basses and do other things that make us like their music, and all in good time you may be able to do something like them.'

212. In borrowing the idea of self-expression from the kindergarten, music teachers have not considered the kind of medium through which the thought has to be expressed. When the child makes what she calls 'poetry,' she uses the familiar

medium of her mother tongue. When a little chap wants to give you his notion of a bird's nest, he digs his chubby fist into a ball of clay or plasticine and works it round, and to show you that it is a nest and not a sugar-basin he puts some little eggs at the bottom. His possibilities of self-expression through modelling increase in proportion to his command over clay or plasticine, and neither of these is a difficult medium. Again, in brush-work, a child must attain a certain mastery over his tool and his colour medium before he can produce anything recognizable. His teachers, knowing this, give much attention to *the medium*, and his progress is gauged by his gain in control of it.

213. Now, apply this to music. In the earliest stages the child's medium is his own little voice, and because he uses that easily we are deluded into thinking that self-expression in music is easy. But once we get beyond that stage we are confronted with the very difficult media of notation and the keyboard, the two channels through which the musician must express whatever ideas may be in him. Is not the teacher's first task to *build up the medium*, the only means by which the pupil, if he should ever have anything to express, can do it? Musical thought and invention soon become too intricate for the average child-mind. If an exceptional child-mind is discovered, the average teacher is not the person to deal with it. I am speaking to the average teacher of the average child; and, honestly, I cannot see how we are to bring the schoolgirl's musical knowledge and skill to any *useful* stage if we devote much of the

precious two half hours a week to side-shows. We must preserve our sense of proportion, remembering that for the amateur music is only one part of an all-round education. We must cultivate our sense of perspective, not placing in the foreground what may properly belong to a very dim distance. And we must exercise our common sense, and not—as Sir Oliver Lodge puts it—'spend precious time digging a soil in which nothing is to be grown and from which no fruit is expected.'

214. In Professor Adams' 'Students' Guide' I find this—and if by altering two words we put the teacher in the place of the student, it sums up the matter better than I can do it:

> 'When we are at a loose end, it may be quite a desirable thing to follow up interesting investigations, but we must keep in view in our [teaching] the main lines, so as to make systematic progress, and not be allured into following the strange gods of desultory [experiment].

215. There are so many delightful experiments we might make—and ought to make—if only time allowed; and it is good to know that some schools are giving sufficient time to music for such experimental work. The questions for the teacher in ordinary schools and private families are simply these: I have two half hours a week with my pupil, and the pupil has four (often only three) half hours alone. Of all the things I should like to do, how many *can* I do in that time? Which calls for immediate attention? How can I secure the maximum of understanding in a minimum of time, and give my pupil some command of the

keyboard as well, getting proof of musical intelligence through the fingers?

In the reaction from the old unintelligent grind at playing alone we are apt to go into the other extreme and say, 'Playing doesn't matter; let them learn to listen.' But it matters very much. On this side also let us keep our sense of proportion.